



Name: _____
 Mr. Tiénou-Gustafson, Mr. Bielmeier
 Geometry, Period _____
 Due Date: Fri, 26 Sep 2014

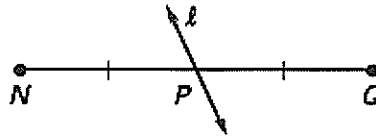
HW23 Segment Bisector

**Geometry
Homework**

Form A

Failure to show work on all problems or use complete sentences will result in a LaSalle.

Use the diagram below for problems 1 – 4.



1. What is the name of the line that bisects segment NQ?

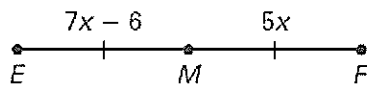
(split in two equal parts)

2. What is the name of the midpoint of NQ?

3. Find NP if NQ = 31.8 cm.

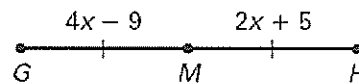
4. Find NQ if PQ = 13 in.

5. Assume that point M marks the midpoint of the line. Find MF.



$$\overline{EM} = \overline{MF}$$

6. Find MH if M is the midpoint.



$$4x - 9 =$$

7. Line AB is bisected at point C. Find AC if AB = 56 feet.



8. Line AB is bisected at point C. Find BC if AC = 12 cm.



9. Your house and the mall are 9.6 miles apart on the same straight road. The movie theater is halfway between your house and the mall, on the same road.

a. Draw and label a sketch to represent this situation.

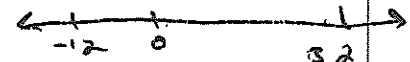
b. How far is your house from the movie theater?

10. Which point represents the midpoint of segment AB?



- A. Point D
 B. Point D and Point C
 C. Point C
 D. Point E

11. Find the midpoint of a segment on a number line with coordinates -12 and 32.



- A. -44
 B. 10
 C. 20
 D. 22

12. A line passes through point A(9,4) and point B(17, 6). What is the slope?

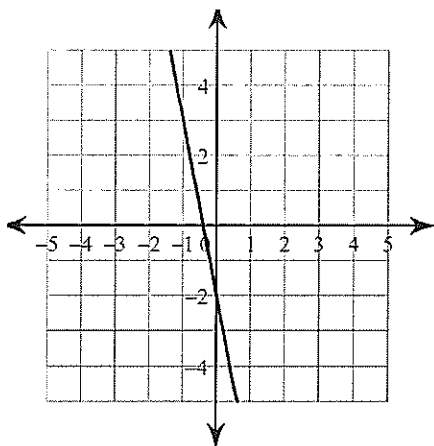
$$m = \frac{(y_2 - y_1)}{(x_2 - x_1)}$$

13. Without calculating the slope, how can you tell that the slope of the line that passes through the points (-5, -3) and (2, 4) is positive?

14. Challenge. You must *attempt* to solve for (4, y) and (7, -6); slope: -4

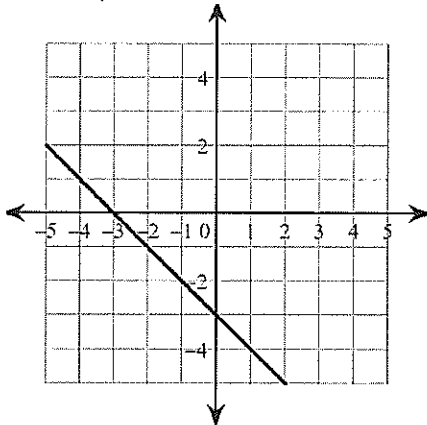
15. If S(-2, 1), T(-12, 11), and U(-6, -1), which line has the smallest (*hint: flattest*) slope: TU, ST, or SU? Explain how you know. (*Draw the three lines to prove your answer*)

16. Write the equation of this graph in slope-intercept form.



Y-Int: ____ / Slope: ____ / Equation: _____

17. Write the equation of this graph in slope-intercept form.



Y-Int: ____ / Slope: ____ / Equation: _____

18. **ERROR ANALYSIS!!!** (Write in complete sentences)

Describe and correct the error in calculating the slope of the line passing through the points (5, 3) and (2, 6).

$$m = \frac{6-3}{5-2} = \frac{3}{3} = 1$$

19. Graph the equation of the line that intersects the coordinate (-3, -1) and has a slope of $\frac{1}{4}$.

